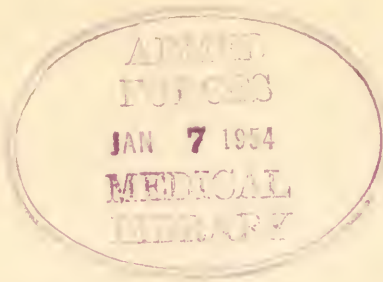


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Letter No. 7
April 5, 1943

Dear Doctor:

This letter is sent to you by the Surgeon Generals of the Army, Navy, and the U.S. Public Health Service, with the cooperation of the American Medical Association and under the auspices of the Committee on Information of the Division of Medical Sciences of the National Research Council.

In an address by Assistant Navy Secretary Ralph A. Bard, before the graduating class of Northwestern University Medical School, he said: "We must be ready for whatever onslaughts may be aimed at us by the invisible ranks of disease. Already there have been reports of raging typhus in Central Europe. Many of our men in tropic climes are suffering from exotic diseases of which we know little.

"In 1918, the Navy and Marine Corps had approximately 10 lobar pneumonia admissions for every thousand men. Today the rate is less than two per thousand. Mortality from cerebro-spinal fever has dropped from approximately 40 per one hundred thousand in 1918 to less than one today. Diphtheria deaths per one hundred thousand are down from 10 in 1918 to less than one. Pneumonia deaths are down from 119 in the last war to less than two today." (Army and Navy Journal, Vol. LXXX, No. 30, Mar. 27, 1943, p. 842)

The use of synthetic detergents for cleansing of burns before tanning is suggested by Dr. Norman Rosenberg of Mt. Sinai Hospital in New York City, in a report published in Surgery, March 1943 (p. 385). Of 100 detergent and detergent mixtures which were tested, mixtures of sulfatate, which is sulfonated petroleum, and various other emulsifiers and detergents seemed to be most efficient. In the use of this detergent, all burns covered with grease, oil, or fat were promptly swabbed with cotton pledgets which had been soaked in the detergent mixture. In many cases only two or three cubic centimeters of the mixture were necessary and also a slight amount of swabbing was required to impregnate the grease or oil layer with the detergent. Sterile water was then allowed to flow over the burned area, with or without the gentlest of swabbing. The detergent and the contaminating agents were easily washed away in almost all instances, leaving a clean burned area. After gentle drying with a sterile towel, the burn was then ready for the debridement of vesicles and tanning. For evidence that all grease or oil had been completely removed, a good "take" of dye, usually a 2 per cent aqueous gentian violet, was attained at the first application. Dyed areas also seemed

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to show a tendency to dry more quickly. The agents employed caused neither symptoms nor signs of local irritation or pain.

Research by Drs. George W. Duncan and Alfred Blalock from the Department of Surgery of Johns Hopkins School of Medicine and Hospital proved that the prolonged application of a tourniquet to an injured extremity greatly reduced the chances of survival of the animal. In the experiments, large animals were used, under anesthesia. Trauma was produced by artificial means, but the femur was not fractured. Ten animals served as controls, no tourniquet being applied. In the remaining ten animals a rubber tourniquet was applied tightly around the upper part of the thigh. The tourniquet was left in place five hours. Death occurred in all experimental animals on which the tourniquet was applied to the injured extremity, whereas eight of the control animals survived. (Surgery, Vol. 13, No. 3, March, 1943, p. 401)

In the Archives of Internal Medicine for March 1943 (p. 301) Captain Hyman Levy, Medical Corps, Army of the United States, calls attention to a certain clinical pattern involved in the relation between angina pectoris and the syndrome of peptic ulcer., 1. The symptoms of peptic ulcer and anginal symptoms may occur suddenly and simultaneously, and occasionally acute peptic ulcer may be associated with coronary thrombosis. 2. Repeated attacks of angina pectoris at rest, finally eventuating in coronary thrombosis, may occur two to three hours after meals and during the night at the hours characteristic of pain from ulcer. 3. When symptoms of angina pectoris and peptic ulcer coexist, successful treatment for symptoms of ulcer may cause remission of the anginal syndrome. 4. Epigastric localization of anginal pain may be conditioned by a preexisting peptic ulcer.

Both conditions affect males predominantly; both conditions are rarely encountered in Negroes. More significant, probably, is the periodicity of symptoms in both conditions, with alternating states of activity and remission. In both diseases the symptoms tend to recur during periods of emotional strain. Angina pectoris, like the pain from peptic ulcer, frequently awakens the patient from sleep during the night by increased activity of the vagus nerve. The common denominator of the syndromes of angina pectoris and peptic ulcer is heightened excitability of the vagus nerve.

The authors recommend that glyceryl trinitrate should be used freely for postprandial pain no matter where the pain is located. At times erythrol tetranitrate, $\frac{1}{2}$ to 1 grain, given four times a day, is helpful.

Patients with the combined syndromes of peptic ulcer and angina pectoris, when treated for the symptoms of peptic ulcer, often report relief from the anginal seizures. Such patients should receive a modified Sippy diet or some other suitable diet, with frequent feedings. In addition, they should receive full doses of atropine, enough to induce dryness of the mouth, which means from 1/150 to 1/75 grain three or four times a day. Phenobarbital, given three times a day, from 1/3 to 1/2 grain, lessens reflex excitability.

H. Spaeth, writing in Deut. Med. Woch. for Sept. 11, 1942, page 912, points out that trichiniasis has been rare in pigs in Germany and almost unknown in man but that it is common in Poland, Russia and Norway and that the condition is occurring frequently in German troops in these countries, especially when the advance of troops renders proper inspection of meat difficult. In one base hospital in that area fifteen such groups of cases occurred. Cases are also occurring now among troops in Germany and among civilians. The cardinal symptoms usually seen include conjunctivitis with edema of the eyelids, disappearing in two to four days, fever, muscle pains and eosinophilia. Only two patients of all those on whom electrocardiographic studies were made showed a normal electrocardiogram. The electrocardiogram became stable about the twelfth week. Mortality is related less to the number of encapsulated larvae than to the patient's age and the condition of the circulation. There was one death. Convalescence, as the electrocardiogram shows, should last much longer than was formerly thought necessary. For treatment castor oil was used in the early stages in an attempt to expel the adult worms. Symptomatic treatment included intravenous glucose after the acute stage. Light exercise during convalescence helps the muscle trouble. All troops should be warned of the disease and its mode of transmission. All pork should be cooked for two and one-half hours in pieces not thicker than 10 cm. Another article by H. Reimann (in Deut. Militararzt, July 1942, p. 448) calls attention to the large number of cases of trichiniasis in German military hospitals. He made studies of these patients with the electrocardiogram and concludes that ~~xxx~~ myocardial damage always occurs in severe trichiniasis, although in slight cases the myocardium is not necessarily involved. Rest in bed is necessary for all severe and moderately severe cases. (Bulletin of Hygiene, Vol. 18, No. 2, Feb. 1943, p. 126 and p. 128)

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An article by Smitmans in the Reichs-Gesundheitsblatt for Feb. 1940, page 121, indicates that epidemic keratoconjunctivitis has been seen frequently in Berlin. One hundred and ninety cases were seen at the University Eye Clinic of Berlin between August 1938 and February 1940. (Bulletin of Hygiene, Vol. 18, No. 2, Feb. 1943, p. 130)

K. W. Clauberg and W. Pflaum report in several German periodicals the effects of moving hot air as a technic for delousing. The ministerial instructions for dealing with typhus require one and one-half hours' exposure at 90°C., although lice and nits are killed in 10 to 15 minutes at 80° C. Buxton in England says that five minutes at 54° C. are sufficient. The apparatus developed includes an air current winding through small compartments of a chamber. The air can be blown from top to bottom or vice versa. The authors conclude that hot air cannot entirely replace steam disinfection but that a combined apparatus is valuable. Hot air sterilization, according to H. Kliewe (Ztschr. f. Hyg. u. Infektionskr., May 16, 1942, p. 725), is insuitable for clothing if total disinfection is required but will destroy the agents of infectious diseases which are nonsporing bacteria and viruses. (Bulletin of Hygiene, Vol. 18, No. 2, Feb. 1943, pp. 142-143).

The sprue syndrome is discussed by Sir Arthur Hurst in The Clinical Journal for March-April, 1943, p. 46. Three constant and characteristic features are common to sprue, nontropical sprue and celiac disease. They are: 1. The stools contain excess of split fat but no excess of neutral fat, meat fibres or starch. 2. The x-rays show a disappearance of the normal feathery or herring-bone aspect of the duodenum and jejunum produced by the valvulae conniventes. 3. No pathological changes are found in the intestines after death if post-mortem changes have been prevented. Adequate treatment restores normal fat absorption and the disappearance of the excess of split fat from the stools, with the reappearance of the normal radiographic aspect of the small intestine. Hurst believes that obstruction of the lacteals by tuberculous glands and less frequently by glands affected with Hodgkin's disease, lymphosarcoma and secondary carcinoma is the cause of the majority of cases of nontropical sprue. He concludes that tropical sprue, nontropical sprue and celiac disease are varieties of the same disorder which differ only in the part of the world in which the disease originated and the age of the patient. Treatment of the sprue syndrome consists in providing a diet with a minimum of fat and a plentiful supply of protein, carbohydrates, fat-soluble vitamins, iron and calcium. The patient should be kept in bed until there is no diarrhea, but careful supervision of the diet and a sufficient quantity of iron, calcium, liver extract and vitamins to overcome any secondary deficiencies must be maintained for a prolonged period.

In World War I available reports indicate that 243 American men in the armed forces were made sightless by injuries. Thus far, according to available reports the number of blind in the British armed forces is well under 500. An elaborate program is being developed through cooperative effort with military agencies and with the Veterans Bureau to rehabilitate socially and economically all of those blinded. Federal funds have been made available by act of Congress for this purpose.

A memorandum from the Headquarters of the Army Air Forces indicates that interns and residents in Air Forces hospitals will be given opportunity for additional training. Men will be assigned from Carlisle Barracks to designated Army Air Force hospitals, by the Air Surgeon, at the approximate ratio of 1.5 officers per 100 hospital beds. These officers will serve as junior assistants for a period of approximately six months in the larger hospital installations. These junior officers will be assigned to ward work under a senior officer, preferably one who has had some teaching experience or who is personally adaptable to teaching. He will act as consultant and adviser for the junior officer or officers under him. The junior officer will keep records, make physical examinations and take over all routine work under the direction of his senior officer. A complete curriculum has been developed. Junior officers will be graded weekly by their consultants and at the end of a six months' period a final grade will be given to each junior officer by the Post Surgeon. Professional ability, adaptability to army routine and qualities of leadership shall be considered in the final evaluation. Military necessities permitting, the upper third of the class will be allowed to choose between a second period of six months in a preferred straight residency in the same hospital installation or of being assigned to the School of Aviation Medicine, preference of service being given in the order of class rank. The remaining members of the class will then be assigned, by the Air Surgeon, to smaller hospitals serving the flying fields, in order that they may gain some first-hand knowledge of this type of service. After an additional period of service at this type of installation, they will be further classified for the School of Aviation Medicine or a general duty assignment. Residents whose civilian training has been interrupted will when possible continue training in that specialty.

According to an article in the Nazi-controlled French newspaper Action Francaise, there is a pressing shortage of insulin in France. Lard, lanolin, cocoa butter and other materials are also so short that the manufacture of hair pomade using these materials has been forbidden.

The Russian Tass news agency on March 15 reported that a German military delegation visiting Budapest demanded the mobilization of 3000 Hungarian surgeons and surgeons' assistants for service with the Nazi forces, also that Nazi officials in Rumania had demanded militarization of 70 per cent of the remaining civilian doctors in Rumania.

According to Sweden's newspapers, the Germans have requisitioned ruthlessly the hospitals of Norway. Syphilis, previously rare in Norway, is now common. There have been several diphtheria epidemics. German authorities have begun forcibly to draft Norwegian nurses for German hospitals in Norway. Eighty nurses have recently been taken from one hospital to replace German nurses who are being sent back to hospitals in Germany.

From Britain comes a report that the National War Formulary Committee has agreed, at the request of the Ministry of Health, to add to the National War Formulary a formula for medicated hair oil designed to eradicate head lice. The formula includes equal parts of a substance called lethane 384 special and a white oil of high boiling point, to which perfume not in excess of 2 per cent may be added. It is stated that one application of this hair oil is efficient in destroying all lice in the scalp. Lethane is an aliphatic thiocyanate chemically known as n-butyl carbitol thiocyanate. It has been sold for some time in the United States by the firm of Rohm & Haas as a fly spray. It is used in the treatment of pediculosis and was reported almost simultaneously in England and in Canada. The first paper in Canada appeared in the Canadian Public Health Association Journal, December, 1941. (The Medical Officer, March 6, 1943, page 79.)
